

NOTE

Hedge Bindweed, *Calystegia sepium* (Convolvulaceae), an Adventitious Host of the Chrysanthemum Lace Bug, *Corythucha marmorata* (Heteroptera: Tingidae)

The chrysanthemum lace bug, *Corythucha marmorata* (Uhler), ranges throughout most of the United States and southern Canada (Slater and Baranowski, 1978. How to know the true bugs (Hemiptera-Heteroptera). Wm. C. Brown, Dubuque, Iowa, 256 pp.). As the common name suggests, this tingid feeds on Compositae (= Asteraceae), particularly species of *Ambrosia*, *Aster*, *Chrysanthemum*, *Helianthus*, and *Solidago* (Bailey, 1951. Entomol. Am. 31: 1-140). Drake and Ruhoff (1965. U.S. Nat. Mus. Bull. 243: 1-634) listed *Echinops*, *Rudbeckia*, and *Tanacetum* spp. as additional composite hosts, and Horn et al. (1979. No. Car. Agric. Exp. Stn. Tech. Bull. 257: 1-22) added *Silphium* to the known hosts. In Pennsylvania, *C. marmorata* is common on spotted knapweed, *Centaurea maculosa* Lam., and mugwort, *Artemisia vulgaris* L.; in herb gardens on the Cornell University campus, Ithaca, N.Y., it causes extensive foliar chlorosis on wormwood, *Artemisia absinthium* L., and southernwood, *A. abrotanum* L. (unpubl. observations). The record of this tingid from oak, the only noncomposite host given in the literature, probably should be referred to the oak lace bug, *C. arcuata* (Say) (see Bailey, *ibid.*: 88).

On 7 August 1986, I observed a large population of the chrysanthemum lace bug damaging hedge bindweed, *Calystegia sepium* (L.) R. Br. (formerly in *Convolvulus*) at Milan (Bradford Co.), Pennsylvania. All life stages of the tingid were present; eggs were inserted near the midrib and lateral veins on abaxial and adaxial surfaces. The hedge bindweed, growing on a fence above

a mugwort plant infested with the lace bug, showed severe chlorosis and accumulation of cast skins and black excrement.

Rather than a host shift, or the adding of a convolvulaceous plant to the diet of *C. marmorata*, my observations probably represent adaptive behavior allowing the bug to cope with the apparent deterioration of an isolated mugwort plant. The hawthorn lace bug, *C. cydoniae* (Fitch), has been reported to temporarily colonize and injure roses growing near heavily damaged plants of a preferred rosaceous host, *Cotoneaster* sp. (Wheeler, 1981. Great Lakes Entomol. 14: 37-43). In the present case the adventitious host, hedge bindweed, belongs to a different family (Convolvulaceae) and order (Polemoniales) from the typical hosts of *C. marmorata*; the Convolvulaceae and Compositae, however, are members of the same subclass (Asteridae) (Cronquist, 1968. The evolution and classification of flowering plants. Houghton Mifflin, Boston, 396 pp.). For *C. morrilli* Osborn and Drake, another species of the genus that feeds on herbaceous composites (Silverman and Goeden, 1979. Pan-Pac. Entomol. 55: 305-308), the only known noncomposite host also belongs to the Convolvulaceae: sweet potato, *Ipomoea batatas* (L.) Lam. (Drake and Ruhoff, *ibid.*: 155).

Adults and nymphs have been deposited in the insect collection of the Pennsylvania Department of Agriculture (PDA).

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